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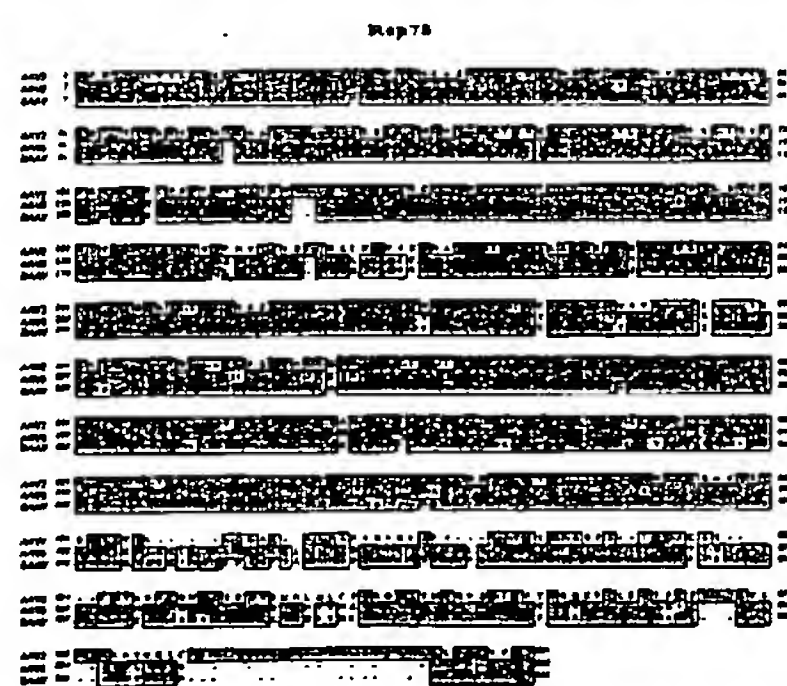
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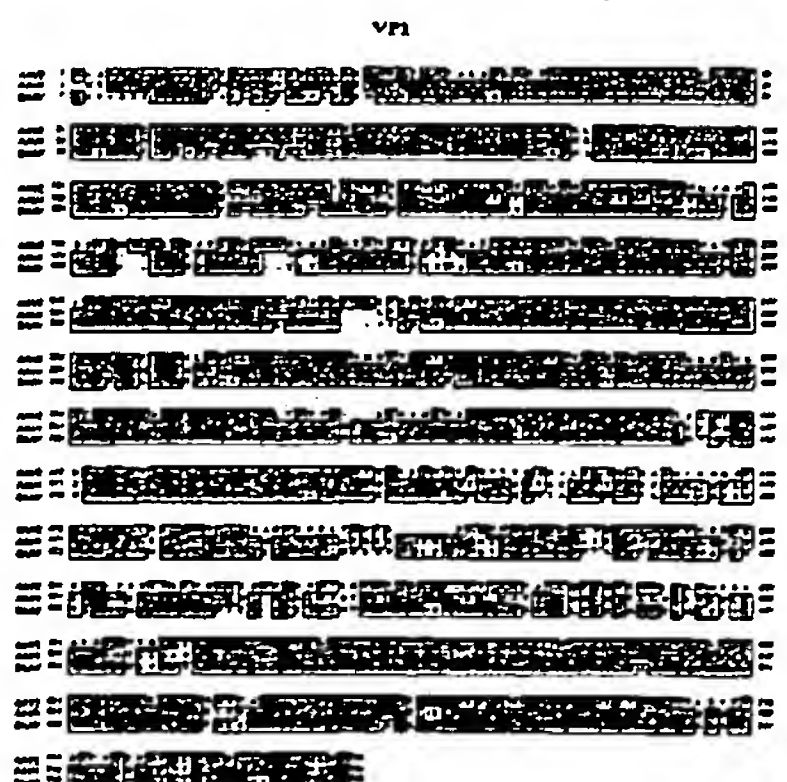
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(54) Title: BOVINE ADENO-ASSOCIATED VIRAL (BAAV) VECTOR AND USES THEREOF



(57) Abstract: The present invention provides a bovine adeno-associated virus (BAAV) virus and vectors and particles derived therefrom. In addition, the present invention provides methods of delivering a nucleic acid to a cell using the BAAV vectors and particles.



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International Application No

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/864 C12N15/35 C12N7/01 C07K14/015 C07K16/08
C12Q1/68 C12Q1/70 G01N33/68 A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	SCHMIDT MICHAEL ET AL: "Cloning and characterization of a bovine adeno-associated virus" JOURNAL OF VIROLOGY, vol. 78, no. 12, June 2004 (2004-06), pages 6509-6516, XP002335522 ISSN: 0022-538X the whole document	1-108
E	WO 2004/112727 A (AVIGEN, INC; ARBETMAN, ALEJANDRA ELENA; COLOSI, PETER; LOCHRIE, MICHAEL) 29 December 2004 (2004-12-29) example 10; sequence 26	26, 33, 37-40, 48, 49, 66, 108
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- 'A' document defining the general state of the art which is not considered to be of particular relevance
- 'E' earlier document but published on or after the international filing date
- 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- 'O' document referring to an oral disclosure, use, exhibition or other means
- 'P' document published prior to the international filing date but later than the priority date claimed

- 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- '&' document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/70276 A (THE GOVERNMENT OF THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE) 27 September 2001 (2001-09-27) figures 1-4; sequence 1 -----	13-15, 20-24, 41,43, 45,65
X	WO 01/83692 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA; HILDINGER, MARKUS; WIL) 8 November 2001 (2001-11-08) examples 1-6 -----	1-11, 50-63, 66-108
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X	WO 95/11997 A (DEUTSCHES KREBSFORSCHUNGSZENTRUM, STIFTUNG DES OEFF; KERN, ANDREA; KLE) 4 May 1995 (1995-05-04) examples 1-9 -----	47-49
X	WO 99/61601 A (THE GOVERNMENT OF THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE) 2 December 1999 (1999-12-02) page 39 - page 45 -----	13-15, 20-24, 41,43, 45,65
X	WO 98/11244 A (THE GOVERNMENT OF THE UNITED STATES OF AMERICA, RE; CHIORINI, JOHN, A;) 19 March 1998 (1998-03-19) sequences 4, 16, 18 -----	26,33, 37-40
X	EP 1 310 571 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA) 14 May 2003 (2003-05-14) sequence 61 -----	26,33, 37-40
X	CHIORINI J A ET AL: "Cloning and characterization of AAV5" JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 73, no. 2, February 1999 (1999-02), pages 1309-1319, XP002125035 ISSN: 0022-538X the whole document -----	13-15, 20-24, 41,43, 45,65
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/040825

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>CHIORINI J A ET AL: "CLONING OF ADENO-ASSOCIATED VIRUS TYPE 4 (AAV4) AND GENERATION OF RECOMBINANT AAV4 PARTICLES" JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 71, no. 9, September 1997 (1997-09), pages 6823-6833, XP002058635 ISSN: 0022-538X the whole document</p> <p>-----</p>	26,33, 37-40
T	<p>DI PASQUALE G ET AL: "A Novel Bovine Virus Efficiently Transduces Inner Ear Neuroepithelial Cells" MOLECULAR THERAPY, ACADEMIC PRESS, SAN DIEGO, CA,, US, vol. 11, no. 6, June 2005 (2005-06), pages 849-855, XP004908862 ISSN: 1525-0016</p> <p>-----</p>	
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A	<p>CORIA M F ET AL: "ISOLATION AND IDENTIFICATION OF A BOVINE ADENOVIRUS TYPE 3 WITH AN ADENOVIRUS ASSOCIATED VIRUS" AMERICAN JOURNAL OF VETERINARY RESEARCH, vol. 39, no. 12, 1978, pages 1904-1906, XP009050511 ISSN: 0002-9645</p> <p>-----</p>	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/040825

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 47, 50-63 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/040825

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